

Validity of the varieties of *Senecio patagonicus* (Asteraceae)

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Abstract

The validity of the varieties of *Senecio patagonicus* HOOK. & ARN. described by CABRERA is discussed. It is concluded that *S. patagonicus* var. *alyssooides* sensu CABRERA and *S. patagonicus* var. *lobatifolius* (HOMBR. & JACQUINOT) CABRERA are synonyms of *Senecio floccidus* HOMBR. & JACQUINOT, and *S. patagonicus* var. *andersonii* (HOOK. f.) CABRERA is synonym of *Senecio arnottii* HOOK. f.

Kew words: *Senecio patagonicus*, Asteraceae, taxonomy.

Resumen

Se discute la validez de las variedades de *Senecio patagonicus* HOOK. & ARN. descritas por CABRERA. Se concluye que *S. patagonicus* var. *alyssooides* sensu CABRERA y *S. patagonicus* var. *lobatifolius* (HOMBR. & JACQUINOT) CABRERA son sinónimos de *Senecio floccidus* HOMBR. & JACQUINOT, y que *S. patagonicus* var. *andersonii* (HOOK. f.) CABRERA es sinónimo de *Senecio arnottii* HOOK. f.

Palabras clave: *Senecio patagonicus*, Asteraceae, taxonomía.

Introduction

Senecio patagonicus described by W. J. HOOKER & G. A. W. ARNOTT (1841) was based upon a plant collected by Captain PARKER KING at Pot Famine (Puerto Hambre) in the Strait of Magellan (Chile).

The members of this species constitute lanuginose shrubs, 15–50 cm tall, with sessile, entire or few-toothed leaves, and discoid heads arranged in corymbs. According to these characters CABRERA & al. (1999) placed this species in the series *Xerosenecio*

(CABRERA) CABRERA & S. E. FREIRE of the genus *Senecio*.

CABRERA (1949) included *S. andersonii* HOOK. f. (the type collected by LECHLER also at Port Famine), *S. danyausii* HOMBR. & JACQUINOT var. *alyssoides* SCH. BIP. (from Sandy Point), and *S. danyausii* var. *lobatifolia* HOMBR. & JACQUINOT (from Pecket Bay, next to Sandy Point), as varieties of *S. patagonicus*.

During the revision of the series *Xerosenecio*, we conclude that *S. patagonicus* HOOK. & ARN. var. *alyssoides* sensu CABRERA and *S. patagonicus* var. *lobatifolius* (HOMBR. & JACQUINOT) CABRERA belong to a species whose valid name is *Senecio floccidus* HOMBR. & JACQUINOT, and that *S. hookeri* HOMBR. & JACQUINOT, included by CABRERA in the synonymy of the typical variety, also belongs to this species. On the other hand, the variety described by C. H. SCHULTZ (*S. danyausii* var. *alyssoides* SCH. BIP.) does not belong to *S. floccidus*, but is a synonym of *S. laseguei* HOMBR. & JACQUINOT, a species of the series *Suffruticosi* CABRERA.

As regards *S. andersonii* HOOK. f., basionym of *S. patagonicus* var. *andersonii* (HOOK. f.) CABRERA, and *S. forsteri* PHIL. (included by CABRERA in its synonymy), both are synonyms of *Senecio arnottii* HOOK. f.

Taxonomy

Key to the species

- A. Involucre broadly campanulate, with 18–24 phyllaries *S. arnottii*
- AA. Involucre with 8–14 phyllaries
- B. Involucre globose, 4.5–5.5 mm high. Dwarf shrubs less than 0.3 m high, with stems and leaves densely lanuginose. Leaves 0.7–1(–2) ∞ 0.1–0.2 cm
..... *S. floccidus*
- BB. Involucre campanulate, 6–8(–9) mm high. Shrubs 0.4–0.7 m high, with stems and leaves loosely lanuginose. Leaves 1.5–6 ∞ 0.15–0.45 cm. *S. patagonicus*

Description of species

Senecio arnottii HOOK. f., Fl. antarct. 2: 314. 1846. Based on *S. limbardioides* HOOK. & ARN. but J. D. HOOKER selected a new name after realizing that W. J. HOOKER & G. A. W. ARNOTT utilized the epithet *limbardioides* for another species of *Senecio* with radiate heads (J. Bot. (HOOKER) 3: 333. 1841).

S. limbardioides HOOK. & ARN., J. Bot. (HOOKER) 3: 347. 1841. Type: Chile: Port Gregory, Capt. KING (holotype K; digital image of holotype [K 9046]!).

Synonyms:

S. limbardii var. *major* HOOK. & ARN., J. Bot. (HOOKER) 3: 347. 1841. Type: Chile: Chiloe, DARWIN 388 (holotype K; digital image of holotype [K 9046]!).

S. andersonii HOOK. f. (var. α β γ). Fl. antarct. 2: 312. 1846. Type: Chile: Strait of Magallanes, Port Famine, J. ANDERSON (holotype K; digital image of holotype [K 9038]!).

S. forsteri PHIL., Anales Univ. Chile 43: 494. 1873. Type: Chile: Magallanes aestate, 1864-65, PHILIPPI s. n. (holotype SGO; digital image of holotype!; photo and fragment of isotype, ex B, in LP!).

S. pelquensis DUSÉN, Rep. Princeton Univ. Exp. Patagonia, Botany 8, suppl.: 276, plate 2. 1914. Type: not seen.

S. patagonicus var. *andersonii* (HOOK. f.) CABRERA. Lilloa 15: 270. 1949.

Icon.: P. DUSÉN, op. cit. plate 2; A. L. CABRERA, Lilloa 15: 288, fig. 102. 1949; A. L. CABRERA, in M. N. CORREA, Fl. patagonica, 7: pag. 245, fig. 249 and pag. 248, fig. 250 (sub. nom. *S. pelquensis*). 1971.

Shrubs 0.20 m, lanuginose to almost glabrous, sometimes with glandular hairs. Leaves ovate-elliptic to elliptic, 1.3–3 cm long, 1.5–4.5 mm wide, acute, entire or with 2 or more broad irregular teeth on both sides. Heads 2–6 together, sometimes solitary. Involucre broadly campanulate, 9–10 mm high, 8–9 mm wide. Phyllaries 18–24, lanuginose to subglabrous. Flowers 32–60, yellow. Achenes glabrous or papillose.

Distribution: Argentina, from Neuquén Province to Tierra del Fuego Province and S of Chile, in the Provinces of Chiloe and Magallanes.

Additional specimens examined: ARGENTINA. **Neuquén:** Dep. Aluminé: Bajada del Rahue, 20.I.1948, G. DAWSON & E. SCHWABE 2106, 2108 and 2109 (BAA). **Río Negro:** Dep. Bariloche, Verano de De Vooch, 22.I.1983, L. CUSATO 2393 (BAA). **Santa Cruz:** Dep. GüerAike: Laguna Cóndor, 15.I.1967, O. BOELCKE 12432 (BAA); Ea. Sofía, 3 km W del casco, 350 m s.m., 8.II.1978, TBPA 2995 (BAB); Valle superior del río Turbio, 5.II.1978, TBPA 3726 (BAB); Río Gallegos, 1.III.1962, C. VALLERINI 105 (BAA). Dep. Lago Argentino, Río Santa Cruz, I.1902, HAUTHAL (LP). **Tierra del Fuego:** 12.III.1902, E. L. HOLMBERG & CALCAGNINI (BAB). Dep. Ushuaia, Alrededores de Puerto Brown, 20.I.1955, E. GRONDONA 4310 (BAA); Ea. Figue, 16.II.1953, A. RUIZ LEAL 15100 (LP). CHILE. **Magallanes.** Laguna Blanca, II.1927, J. R. GUIÑAZÚ 204 and 204a (BAA).

Senecio floccidus HOMBR. & JACQUINOT, in DUM. D'URV., Voy. Pole Sud, Atlas, tab. 12. 1845. Type: Chile: Havre Pecket, 1841, HOMBRON (holotype P; digital image of holotype!).

Synonyms:

S. albicaulis var. *lobulatus* HOOK. & ARN., J. Bot. (HOOKER) 3: 344. 1841. Pro parte, syntype: Argentina: Santa Cruz, C. DARWIN 380 (holotype K; digital image of holotype [K9049]!).

S. exilis HOMBR. & JACQUINOT, in DUM. D'URV., Voy. Pole Sud, Atlas, tab. 13 C. 1846. Type: Chile, Havre Pecket, 1841, HOMBRON (holotype P; digital image of holotype!).

S. danyaussii HOMBR. & JACQUINOT, in DUM. D'URV., Voy. Pole Sud, Atlas, tab. 13 B. 1846. Type: Chile, Havre Pecket, 1841, HOMBRON (holotype P; digital image of holotype!).

S. danyaussii var. *lobatifolia* HOMBR. & JACQUINOT, in DUM. D'URV., Voy. Pole Sud, Atlas, tab. 13 B'. 1846. Type: Chile, Havre Pecket, 1841, HOMBRON (holotype P; digital image of holotype!).

S. hookeri HOMBR. & JACQUINOT, in DUM. D'URV., Voy. Pole Sud, Atlas, tab. 13 A. 1846. Type: Chile, Port Franquis, in montibus, 1841, HOMBRON (holotype P; digital image of holotype!).

S. xanthoxylon PHIL., Anales Univ. Chile 88: 7 1894. Type: Argentina: Río Santa Cruz, VIDAL. Not seen.

S. quenselii SKOTTSB., Kungl. Svenska Vetenskapsakad. Handl. 56 (5): 323. 1916. Type: Argentina: Lago Buenos Aires, 12.XII.1908, SKOTTSBERG 696 (holotype, S; digital image of holotype!). This species was included by CABRERA (1971) and CABRERA & al. (1999) as synonym of *S. filaginoides* DC. var. *filaginoides*.

S. patagonicus var. *alyssooides* sensu CABRERA, Lilloa 15: 270. 1949. Non *S. danyaussii* var. *alyssooides* SCH. BIP., Flora 38: 118. 1855 (Type: Chile: Sandy Point, Pampas, LECHLER 1056 (holotype, P, digital image of holotype!), synonym of *S. laseguei* HOMBR. & JACQUINOT).

S. patagonicus var. *lobatifolius* (HOMBR. & JACQUINOT) CABRERA, Lilloa 15: 271. 1949.

Icon.: J. S. C. DUM. D'URVILLE, op. cit. tab 13, A (sub nom. *S. hookeri*), B (sub nom. *S. danyaussii*) and C (sub nom. *S. exilis*).

Dwarf shrubs, 0.20–0.30 m, silvery-lanuginose. Leaves elliptic, entire or toothed, fleshy, margins involute, 0.7–1(–2) cm long, 1–2 mm wide. Heads numerous. Involucre globose, 4.5–5.5 mm x 4–5 mm. Phyllaries 12–14, densely lanuginose. Flowers 22–40, yellow. Achenes pubescent or glabrous.

Distribution: Argentina, from the SW of Chubut Province to Tierra del Fuego Province, and S of Chile in the Province of Magallanes.

Additional specimens examined: ARGENTINA. **Chubut:** Dep. Río Senguer, Río Mayo, Est. Zootécnica, 29.I.1954, E. GRONDONA 3527 (BAA); 3.II.1954, E. GRONDONA 3549 (BAA, BAB) and 3550 (BAA), 8.II.1954, A. SORIANO 4579 (BAB). **Santa Cruz:** Dep. Corpen Aike, Ruta 3, cruce del río Chico, 11.I.1967, O. BOELCKE 12318 (BAA, BAB). Dep. Deseado: Puerto Deseado, 10.I.1967, O. BOELCKE 12194 (BAA, BAB); Caleta Olivia, 29.XII.1928, A. DONAT 100 (SI). Dep. Güer Aike, Río Gallegos, 3.I.1962, C. VALLERINI 28 (BAA). Dep. Lago Argentino: Ruta 40, entre El Calafate y Lago Viedma, 21.I.1967, O. BOELCKE 12636 (BAA, BAB); Lago San Martín, 23.I.1967, O. BOELCKE 12729 p.p. (BAA, SI); Lago Argentino, Pnla. Magallanes, Ea. Cerro Buenos Aires, 500 m s. m., 17.II.1975, O. BOELCKE 16499 (BAA). Dep. Lago Buenos Aires, 20 km de Bajo Caracoles a Perito Moreno, 28.I.1967, O. BOELCKE 12908, 12910, 12911 (BAA, BAB). Dep. Magallanes, San Julián, 14.V.1914, C. HICKEN 225 (SI). Dep. Río Chico, Gobernador Gregores, borde Río Chico, 30.I.1965, E. ANCIBOR & A. VICINIS (BAA).

S. patagonicus HOOK. & ARN., J. Bot. (HOOKER) 3: 344. 1841. Type: Chile: Port. Famine, Capt. KING (holotype K; digital image of holotype [K 9037]!).

Synonyms:

S. neaei var. *incisus* DC., Prodr. 6: 414. 1838. Type: Argentina: Portum Deseado et Coloniam del Sacramento, NEE (holotype G; fragment of holotype in LP!; photo of holotype in SI!).

S. albicaulis var. *lobulatus* HOOK & ARN., J. Bot. (HOOKER) 3: 344. 1841, pro parte, syntype: Argentina: Santa Cruz, Port Desire, C. DARWIN 398 (holotype K; digital image of holotype [K 9041]!).

S. albicaulis var. *subglaber* HOOK. & ARN., J. Bot. (HOOKER) 3: 344. 1841. Type: Argentina: East coast of Patagonia, EIGHTS 50 (holotype K; digital image of holotype [K9049]!).

S. patagonicus var. *integrifolius* SCH. BIP., Flora 38: 117. 1855. Type: Chile: In arenosis pr. Sandy Point, Oct., LECHLER 1055 (holotype W; isotype NY; digital image of isotype [NY 259328 and 259329]!).

S. lechleri PHIL., Anales Univ. Chile 43: 494. 1873. Type: Chile: Estrecho de Magallanes, 1864-65, PHILIPPI (holotype SGO, photo and fragment of holotype in LP!).

S. palenae PHIL., Anales Univ. Chile 88: 14. 1894. Type: Chile: Río Palena, 1.II.1887, F. DELFIN (holotype SGO; photo of holotype in LP!).

S. sericeus var. *incisus* (DC.) KUNTZE, Revis. Gen. pl. 3 (2): 177. 1898. Based on *S. neaei* var. *incisus* DC.

S. danyaussii var. *pinnatifidus* MACLOSIE, Rep. Princeton Univ. Exp. Patagonia, Botany 8 (2) 843. 1906. Type: Argentina: Río Santa Cruz, I.1897, HATCHER 152 (holotype NY, digital image of holotype [NY 259155]!). Considered by CABRERA (1949) synonym of *S. patagonicus* var. *lobatifolius*.

S. choiquelahuensis SPEG., Anales Soc. Ci. Argent. 53: 16. 1902. Type: Argentina: Choique-lahuen, VIII. 1899, C. SPEGAZZINI (holotype LP!).

Icon.: A. L. CABRERA, Lilloa 15: 268, fig. 96. 1949; A. L. CABRERA, in M. N. CORREA Fl. Patagónica 7: 240, fig. 243 and fig. 245 (sub nom. *S. neaei*). 1971.

Shrubs 0.40–0.70 m, lanuginose or sublanuginose. Leaves elliptic, acute, entire or toothed, 1.5–6 cm long, 1.5–4.5 mm wide. Heads numerous. Involucre campanulate, 6–8(–9) mm x 4–6 mm. Phyllaries 10–14, sublanuginose to glabrous. Flowers 25–50, yellow. Achenes pubescent or glabrous.

Distribution: Argentina from Neuquén Province to Santa Cruz Province, and Chile in the Provinces of Aysen and Magallanes.

Additional specimens examined: ARGENTINA: Chubut: Dep. Futaleufú: Esquel, La Hoya, 26.II.1975, A. L. CABRERA 25963 (SI); Esquel, 26.II.1926, C. HICKEN 19 (SI). Dep. Languineo: Tecka, 12.XII.1985, A. L. CABRERA 33102 (SI). Dep. Tehuelches: Gobernador Costa, 13.XII.1981, A. L. CABRERA 33137 (SI); Lago Vintter, 9.II.1988, E. NICORA 9424 (SI). Dep. Sarmiento, ruta 20, a 33 km de W de Sarmiento, 4.XII.1976, S. ARROYO 287 (SI). **Neuquén**: Dep. Aluminé, PN Lanín, Ea Los Helechos, 17.II.1983, L. CUSATO 2833 (BAA); P. N. Lanín, Cerro Bandurria, 4.III.1985, L. CUSATO 3818 (BAA); P. N. Lanín, Malalco-Quillén, 26.II.1985, L. CUSATO 3893 (BAA). Dep. Chos-Malal, Chos Malal, 15.XI.1969, E. ANCIBOR & al. (BAA); Cerro de la Virgen, 16.XI.1969, E. ANCIBOR & al. (BAA, BAB 90189, LP). Dep. Huiliches: Entre lagos Paimún y Huechulafquen, 5.II.1948, G. DAWSON & E. SCHWABE 2495 (BAA); Ea Mamuil Malal, 20.III.1952, J. DIEM 2064 and 2066 (BAA). Dep. Lacar: Pampa de Alicura, 9.IV.1955, O. BOELCKE 7603 (BAA). Dep. Zapala; Bajada del Manzano, 20 km S de Zapala, ruta 40, 19.XI.1969, E. ANCIBOR & AL. (BAA, BAB 90247). **Río Negro**: Dep. Bariloche: Faldeos Cerro Santa Elena, 31.I.1952, O. BOELCKE 6175 (BAA); Parque Nacional Nahuel Huapi, I.1952, O. BOELCKE 6827 (BAA); San Carlos de Bariloche, 1.IV.1961, M. HAVRYLENKO 5 (BAA); Río Limay, 1.IV.1961, M. HAVRYLENKO 8 (BAA). Dep. Ñorquinco: Ñorquinco, 3.II.1944, E. NICORA 3801 (SI). **Santa Cruz**: Dep. Corpen Aike, 10 km W de Cañadón de Piedra Buena, 13.II.1975, CABRERA 25848 (LP). Dep. Deseado, Caleta Olivia, 8.XII.1970, S. CRESPO & N. TRONCOSO 1673 (SI). Dep. Lago Argentino: Lago San Martín, Ea. La Federica, 23.I.1967, O. BOELCKE 12710 (BAA); Pla. Magallanes, laderas SW Sa. Buenos Aires, 14.II.1975, O. BOELCKE 16388 (BAA, LP). Dep. Lago Buenos Aires, Los Antiguos, camino a Perito Moreno, 24.XI.1965, E. NICORA & M. N. CORREA 3637 (BAA). Dep. Río Chico, Lago Posadas, 30.XII.1964, M. CLEMENS (BA). Dep. Río

Gallegos, Río Gallegos, 6.I.1960, M. N. CORREA 1805 (BAA). CHILE. Aysen: Región del Lago Buenos Aires, Valle Ibañez, 29.I.1939, I. RENTZELL (SI 6169). Magallanes: Última Esperanza, Lago Sofía, 14.I.1977, P. SEIBERT, TBPA 2288 (BAA).

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